RECEIVED
CENTRAL FAX CENTER
AUG 09 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application

Inventor	:	STRIJKER
Application No.	:	10/534,276
Filed	:	05/06/2005
For	:	POWER CONVERTER

APPEAL BRIEF

On Appeal from Group Art Unit 2838

Date: 08/09/2007

By: Michael Ure
Attorney for Applicant
Registration No. 33,089

Certificate of Fax/Mailing Under 37 CFR 1.8

I hereby certify that this correspondence is being faxed to (571)273-8300 or deposited with the United States Postal Service as first class mail in an envelope addressed to the COMMISSIONER FOR PATENTS, Mail Stop Appeal, P.O. BOX 1450 ALEXANDRIA, VA 22313 on date below.

Michael Ure
(Name)

M Ure 8/9/07
(Signature and Date)

TABLE OF CONTENTS

TABLE OF CASES

NONE

RECEIVED
AUG 09 2007
APPEAL
Serial No.: 10/534,276

I. REAL PARTY IN INTEREST

The real party in interest is NXP B.V., the successor in interest to the present assignee of record of the present application, Koninklijke Philips Electronics N.V., and not the party named in the above caption.

II. RELATED APPEALS AND INTERFERENCES

With regard to identifying by number and filing date all other appeals or interferences known to Appellant which will directly effect or be directly affected by or have a bearing on the Board's decision in this appeal, Appellant is not aware of any such appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-11 are pending, of which claims 1 and 7-11 stand finally rejected. Claims 1, 7 and 9-11 form the subject matter of the present appeal. The rejection of claim 8 is not appealed, as this claim currently contains an error in dependency.

IV. STATUS OF AMENDMENTS

All amendments have been entered. No amendment after final rejection has been submitted.

V. SUMMARY of the CLAIMED SUBJECT MATTER

The present invention relates to a power converter device having an inductor and a main switch having a main current path, the inductor and the main current path being

arranged in series for receiving a DC input voltage. A measuring circuit is coupled to a junction of the inductor and the main current switch to obtain a measuring signal indicative of a voltage across the main current path. A control circuit receives the measuring signal to protect the main switch against an overvoltage.

The following analysis of independent claim 1 is presented for convenience:

Element	Figure(s)	Paragraph(s) and/or page(s)
1. A power converter comprising:		
an inductor and a main switch having a main current path, the inductor sand the main current path being arranged in series for receiving a DC-input voltage,	Fig. 1: L, M1	Page 5, line 8 to page 6, line 6
a measuring circuit coupled to a junction of the inductor and the main switch to obtain a measuring signal being indicative of a voltage across the main current path, and	Fig. 1, MC	Page 5, line 8 to page 6, line 6
a control circuit for controlling on-periods and/or off-periods of the main switch to stabilize an output voltage supplied to a load, and having an input for receiving the measuring signal to protect the main switch against an overvoltage.	Fig. 1, CC	Page 5, line 8 to page 6, line 6

VI. GROUNDS of REJECTION to be REVIEWED ON APPEAL

The issues in the present matter are whether:

1. under 35 USC 102(a), claims 1, 7 and 9-11 are anticipated by Plagge.

VII. ARGUMENT

I. Rejection of Claims 1, 7 and 9-11 as Anticipated by Plagge

The power converter of Fig. 4 of Plagge doubtless includes a measuring circuit of sorts. Furthermore, with reference to claim 7 for example, the measuring signal produced by the measuring circuit of Plagge is applied to a control circuit comprising a comparator (Cp of Fig. 4 of Plagge) that takes an action when the measuring signal crosses a reference signal. The question is whether the rejection overlooks other recited features of the claimed invention. Applicant submits it does.

First, it is instructive to examine the Plagge reference in somewhat greater detail. The comparator Cp of Fig. 4 of Plagge controls cycling of the power converter between forward and flyback phases of operation. During the forward phase, the main switch is closed, current flows in the main current path, and energy is stored in the inductor. During flyback, the main switch is opened, interrupting the main current path, and energy is transferred from the inductor to the load.

As described at col. 6, line 65 and subsequent of Plagge:

> At the beginning of the forward phase the PNP-transistor T4 is non-conducting. During the forward phase the voltage at the non-inverting input 6, the emitter of the transistor, increases linearly until the difference between this voltage and the voltage, determined by the reference voltage source, at the inverting input 5, the base of the transistor, has become large enough that the PNP-transistor T4 starts conducting a signal, which is applied to the base of the second transistor T2, then becomes available at the collector of the PNP-transistor, the output of the comparator. Because of the non-linear characteristic of the PNP-transistor T4 the signal applied to the base of the transistor T2 increases rapidly. This causes this transistor to become conductive as a result of which the first transistor T1 is cut-off and *the forward phase is terminated.*

However, operation of the power converter is not *halted*, as recited in claim 7.

Rather, *the flyback phase ensues*. At a certain point, the flyback phase is ended and *the forward phase is resumed* (Plagge, col. 5, lines 28-32).

The "measuring circuit" of Plagge is formed by primarily by R1 (see Plagge, Fig. 1). The function of adjoining circuit elements D4, C1, R3 and R5 is described at col. 6, lines 44-60 of Plagge. They are not described as playing any part in the measuring function performed by R1.

One may appreciate that the measuring circuit of Plagge, namely the resistor R1, is not coupled to the junction of the inductor N1 of Plagge and the main switch T1 of Plagge, as recited in claim 1. Furthermore, the control circuit of Plagge (comparator Cp) does not protect the main switch against an overvoltage in response to the measuring signal as recited in claim 1. (Plagge makes no mention of overvoltage protection.) Claim 1 is therefore not anticipated by Plagge.

Nor is claim 7 anticipated by Plagge. As previously made clear, operation of the power converter is not *halted* when the measuring signal crosses a reference signal, as recited in claim 7.

The rejection states, "The claim recites 'a measuring circuit...indicative of a voltage across the main current path.' This is what (C2/R2/R5) does."

As described in Plagge, R2 is a starter resistor (col. 4, line 43). It causes the circuit to enter the forward phase when power is first applied. R5 is part of a positive feedback circuit, together with C1 and R3. It causes the circuit to resume the forward phase at the conclusion of the flyback phase (col. 6, line 49). The capacitor C2 provides for a rapid transition from the forward phase to the flyback phase (col. 7, lines 14-23).

These elements together do not equate to the measuring circuit with its attendant features as recited in claim 1.

It may be that the Examiner has additional insight into operation of the circuit of Fig. 4 of Plagge beyond that provided in the detailed description of the patent itself. If so, that insight has been presented only in cursory fashion, not in sufficient detail as to allow it to be confirmed or disconfirmed. Hence, the rejection does not make a sufficient showing to support an anticipation rejection of claim 1. Furthermore, the purported anticipation of claim 7 is clearly unsupportable as described above. Claims 1 and 7 are therefore believed to patentably define over Plagge.

With regard to dependent claims 9-11, these claims depend from independent claim 1, which has been shown to be patently distinguishable over the cited reference. Accordingly, these claims are also patently distinguishable and allowable over the cited references by virtue of their dependency upon an allowable base claim.

In view of the above, applicant submits that all of the above referred-to claims are patentable over the teachings of the cited references.

VIII. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referenced teachings, whether taken individually or in combination, fail to anticipate or render obvious the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection is respectfully solicited.

Date: 8/9/07

By: Michael Ure
Attorney for Applicant
Registration No. 33,089

IX. APPENDIX: THE CLAIMS ON APPEAL

1. A power converter comprising: an inductor and a main switch having a main current path, the inductor sand the main current path being arranged in series for receiving a DC-input voltage, a measuring circuit coupled to a junction of the inductor and the main switch to obtain a measuring signal being indicative of a voltage across the main current path, and a control circuit for controlling on-periods and/or off-periods of the main switch to stabilize an output voltage supplied to a load, and having an input for receiving the measuring signal to protect the main switch against an overvoltage.

7. A power converter as claimed in claim 1, wherein the control circuit comprises an comparator for comparing the measuring signal with a reference signal to halt the operation of the power converter when the measuring signal crosses the reference signal indicating that a voltage across the main switch is higher than a particular value.

9. An apparatus comprising the power converter as claimed in claim 1.

10. An apparatus as claimed in claim 9, wherein the apparatus comprises a processing circuit for processing an input signal into an output signal to be made audible via a sound transducer and/or to be displayed on a display device and the power converter as claimed in claim 1, wherein the load comprises the processing circuit.

11. A control circuit for use in the power converter claim 1.

X. APPENDIX: RELATED PROCEEDINGS

NONE

XI. APPENDIX: EVIDENCE

NONE